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(12) **United States Patent**
Laurence et al.(10) **Patent No.:** US 9,408,713 B2
(45) **Date of Patent:** Aug. 9, 2016(54) **FLEXIBLE VERTEBRAL SPACER**(71) Applicant: **DePuy Synthes Products, Inc.**,
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(51) **Int. Cl.***A61F 2/44* (2006.01)*A61F 2/46* (2006.01)*A61F 2/30* (2006.01)(52) **U.S. Cl.**CPC *A61F 2/4425* (2013.01); *A61F 2/4465* (2013.01); *A61F 2/4611* (2013.01);
(Continued)(58) **Field of Classification Search**CPC ... *A61F 2/4425*; *A61F 2/4611*; *A61F 2/4465*; *A61F 2002/30018*; *A61F 2002/30471*; *A61F 2002/30632*; *A61F 2002/30629*; *A61F 2220/0091*; *A61F 2002/30598*; *A61F*2250/0029; *A61F 2002/30624*; *A61F 2250/0064*; *A61F 2002/4415*; *A61F 2002/30596*; *A61F 2002/30616*

See application file for complete search history.

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(Continued)*Primary Examiner* — Christopher Beccia*Assistant Examiner* — Diana S Jones(74) *Attorney, Agent, or Firm* — Baker & Hostetler LLP(57) **ABSTRACT**

A flexible implant system for positioning a flexible spacer between adjacent vertebrae including an interbody spacer and an insertion instrument. The interbody spacer including a central axis, a lateral axis, a top surface positioned generally parallel to the central axis and a plurality of hinge sections extending generally perpendicular to the central axis. A plurality of notches making up the plurality of hinge sections adjacent the top surface that permit the interbody spacer to flex. The interbody spacer further including a groove extending along a lateral side surface, generally parallel to the central axis. An insertion instrument includes a proximal end, a distal end and a tongue extending from the proximal end to the distal end along a non-linear path. The groove slidably engages the tongue to guide the interbody spacer from the proximal end to the distal end along the non-linear path.

19 Claims, 12 Drawing Sheets